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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,634	06/15/2001	Clifford Vernon Harris	ARC920010029US1	2231

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EXAMINER

BLACK, LINH

ART UNIT	PAPER NUMBER
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2167

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/882,634	HARRIS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	LINH BLACK	2167	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-12, 14-17, 19-32 is/are rejected.
- 7) ☒ Claim(s) 9, 13 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20041210</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8, 10-11, 14-1519, 20-26, 28-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Alao et al. (US 2002/0108121).

1. Alao et al. anticipated the independent claims 1, 28 by the following:

receiving a dataset, comprising a set of data elements with corresponding data values, from a source data system – paragraphs 0007-0008.

translating the dataset from a source schema to a target schema, each schema comprising a set of data elements and a set of relationships among the data elements, according to a set of mapping rules, each rule comprising a type and instructions for obtaining one or more target data element values as a function of one or more source data element values, the type containing all the information about relationships among

Art Unit: 2167

data elements used by the function – pars. 0028, 0034, 0045-0047, 0129, 0139, 0174, 0198.

queuing the translated dataset in persistent storage; and sending the translated dataset from the persistent storage to a destination data system – pars. 0167, 0176-0177, 0188.

2. Alao et al. anticipated claims 2, 29 by the following:

the step of queuing comprises the steps of: assigning a key to each new request; and storing a translated dataset in persistent memory – pars. 0074, 0120, 0159, 0179.

3. Alao et al. anticipated claim 3 by the following:

wherein the dataset comprises an XML document – pars. 0038-0039, 0140, 0143, 0146, 0150, 0197.

4. Alao et al. anticipated claim 4 by the following:

wherein the instructions of each mapping rule comprise a computer program – pars. 0046-0049, 0058, 0066, 0070.

5. Alao et al. anticipated claim 5 by the following:

wherein the computer program comprises a Java program – pars. 0190, 0197.

6. Alao et al. anticipated claim 6 by the following:

wherein the computer program refers only methods of the Java String class – pars. 0179, 0187, 0197.

7. Alao et al. anticipated claims 7, 30 by the following:

waiting a set period of time to receive an ACK from the destination system; retrying to send translated dataset to destination system a set number of times – pars. 0040, 0079, 0082-0083, 0088, 0090.

signaling an error if ACK is not received – pars. 0092, 0105.

upon receipt of ACK, removing translated dataset from persistent memory – pars. 0059, 0067, 0097, 0102, 0179.

8. Alao et al. anticipated claim 8 by the following:

wherein there are a finite number of pre-specified rule types that are defined generally for XML documents – pars. 0070, 0146, 0150, 0197.

9. Alao et al. anticipated the independent claims 10, 31 by the following:

scanning a database for outgoing requests – pars. 0172, 0181, 0183.

converting source dataset to a neutral dataset according to a source schema – pars. 0074, 0124, 0167, 0173-0174.

sending the translated dataset to a destination via a network interface – pars. 0128, 0140, 0147, 0167, 0176-0177, 0188-0189.

Art Unit: 2167

10. Alao et al. anticipated claim 11 by the following:

wherein the neutral dataset is an XML document – pars. 0143, 0146, 0150, 0197.

11. Alao et al. anticipated the independent claims 14, 32 by the following:

receiving a neutral dataset; translating the neutral dataset to a first destination dataset according to a destination schema - paragraphs 0007-0008, 0074, 0124, 0167, 0173-0174.

if the neutral dataset has certain specified data values, reading from the destination database a second destination dataset; modifying the first destination dataset according to information in the second destination dataset – pars. 0059-0060, 0067, 0172, 0193. transmitting the first destination dataset to the destination database - pars. 0167, 0176-0177, 0188.

acknowledging a successful transmission of the destination dataset - pars. 0040, 0079, 0082-0083, 0088, 0090.

12. Alao et al. anticipated claim 15 by the following:

wherein the neutral dataset is an XML document – pars. 0143, 0146, 0150, 0197.

13. Alao et al. anticipated the independent claim 19 by the following:

a central bridge component that transforms XML documents into XML documents; a plurality of application specific gateway components, communicatively coupled to said bridge component, each gateway transforming XML documents to and from documents

in application specific formats – pars. 0045, 0099-00100, 0139, 0146, 0150-0151, 0173-0174, 0197.

14. Alao et al. anticipated claim 20 by the following:

wherein the bridge component remembers XML documents that it has transformed by storing them in persistent storage and the gateways keep their work in volatile storage, thereby improving the performance of the gateways relative to the performance of the bridge - pars. 0167, 0176-0177, 0188.

15. Alao et al. anticipated claim 21 by the following:

wherein the bridge component provides a web administrative interface communicatively accessible by means of a browser – pars. 0141, 0174, 0177, 0189-0190, 0192.

16. Alao et al. anticipated claim 22 by the following:

wherein the bridge transforms XML documents according to a set of mapping rules - pars. 0038-0039, 0140, 0143, 0146, 0150, 0197.

17. Alao et al. anticipated claim 23 by the following:

wherein the each mapping rule comprises a type and instructions for obtaining one or more target data element values as a function of one or more source data element values, the type containing all the information about relationships among data elements used by the function - pars. 0028, 0034, 0045-0047, 0129, 0139, 0174, 0198.

18. Alao et al. anticipated claim 24 by the following:

wherein the instructions of each mapping rule comprise a computer program - pars. 0046-0049, 0058, 0066, 0070.

19. Alao et al. anticipated claim 25 by the following:

wherein the computer program comprises a Java program - pars. 0190, 0197.

20. Alao et al. anticipated claim 26 by the following:

a set of mapping rules – pars. 0058, 0066, 0070.

an XML to XML translator, communicatively coupled to said mapping rules - pars. 0045, 0099-00100, 0139, 0146, 0150-0151, 0173-0174, 0197.

an XML parser, communicatively coupled to said XML to XML translator – pars. 0036, 0135, 0183, 0186, 0191.

a gateway interface, communicatively coupled to said XML to XML translator and to said XML parser – pars. 0099-0100, 0189.

a persistent memory device, communicatively coupled to said XML to XML translator - pars. 0167, 0176-0177, 0188.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



Art Unit: 2167

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alao et al. (US 2002/0108121), and further in view of Draper et al. (US 6581062).

21. As per claim 12, Alao et al. do not explicitly teach the source dataset is an SQL result-set. However, Draper et al. teach “method and apparatus for storing semi-structured data in a structured manner” – the title. Draper et al. teach SQL database and the converting of XML to SQL. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Draper et al.’s teaching with Alao’s teaching in order to allow the utilization of semi-structured and structured systems together.

22. As per claim 27, Alao et al. do not explicitly teach an SQL to XML translator, an XML to SQL translator, bridge interface. However, Draper et al. teach an SQL to XML translator, an XML to SQL translator – col. 1, line 65 to col. 2, line 20; col. 7, line 17 to col. 8, line 45.

Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alao et al. (US 2002/0108121), and further in view of Dungan et al. (USP 6363411).

23. As per claim 16-17, Alao et al. do not explicitly suggest null data values. However, Dungan et al. teach “intelligent network” – the title. Dungan et al. teach replacing

Art Unit: 2167

null data values in the first dataset with corresponding data values from the second destination dataset, the correspondence being pre-specified constant values – col. 46, lines 8-65; col. 110, line 25 to col. 111, line 35. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Dungan et al.'s teaching with Alao's teaching in order to better provide services to users.

### ***Allowable Subject Matter***

24. Claims 9, 13, 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 571-272-4106. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN BREENE can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2167

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Linh Black*

LINH BLACK  
Examiner  
Art Unit 2167

December 10, 2004

*Robert Wassum*  
Primary Examiner